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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/720,111	KIM, HYUN-JUNG
	Examiner	Art Unit	
	John M. Frink	2142	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some *   c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2.   Claim 11 is rejected under 35 U.S.C. 102(a) as being anticipated by Lee (KR

2001019998).

Lee shows a method for adding a node-B in a mobile communication system,

wherein the mobile communication system comprises a UMTS radio manager (URM)

and at least one radio network controller (RNC), and wherein the method comprises

(Abstract): performing the following steps without interrupting mobile communication

service in the mobile communications network (Effect of Invention): storing new

processor loading data (PLD) at an RNC which is associated with the Node-B being

added (pg. 2 P10 and P15-17, pg.3 P1-4, 8); and storing the new PLD at the Node-B

(pg.2 P7).

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Ahn (KR 2002058347) in view of Lee (KR 2001019998), further in view of Marjamaki et

al. (US 2003/0139141 A1), hereafter Marjamaki, further in view of Takaya et al.

(5,630,116), hereafter Takaya.

Ahn discloses a method and apparatus for updating identifier (ID) information of

a Node-B, and resetting a UMTS radio manager (URM) system using the updated ID

information of the Node-B in the URM system which manages the Node-B and a

predetermined number of radio network controllers (RNCs) each containing a source

RNC, said method comprising: a) using the URM system to create a processor loading

data (PLD) of the Node-B that can be changed, and transmitting the created PLD to the

Node-B and the RNCs each of which contains the source RNC requiring the created

PLD (Abstract, Purpose of Invention).

Ahn does not disclose b) operating the Node-B and the RNCs having received

the PLD to compare it, and updating only the differing parts between the pre-stored PLD

and the received PLD; and c) resetting the Node-B and the RNCs upon receipt of the

updated PLD.

Lee discloses only updating modified data in the PLD (Abstract, pg. 2 P10 and

P16, pg.3 P1-7), as well as resetting control stations (representing the claimed 'RNC')

after the receipt of said PLD (Abstract, pg. 2 P15 – 17, pg. 3, P15).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the disclosure of Ahn with that of Lee in order to provide for a

simple, non-disruptive way of increasing or decreasing the number of Node-Bs/base

stations through a PLD update, which is further simplified through the use of a template structure for said PLD (Lee, Abstract).

Ahn in view of Lee do not disclose resetting said Node-Bs after the update.

Marjamaki discloses resetting the Node-B after an update ([0031]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of Ahn in view of Lee with that of Marjamaki in order to provide for a method of resetting updated the Node-B/base stations after an update, which can be a required step in a successful update (Marjamaki, Abstract, [0031]).

Ahn in view of Lee and Marjamaki do not disclose operating the Node-B and RNCs having received the PLD to compare said PLD to determine the different parts, and only updating said different parts.

Takaya discloses updating comparing data in different versions of files and only updating the differing elements (Abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of Ahn in view of Lee and Marjamaki with that of Takaya in order to provide for an efficient update system (Takaya, col. 1 lines 43 – 46).

Ahn in view of Lee, Marjamaki and Takaya thus teach claim 1, including operating the Node-B and the RNCs having received the PLD to compare it, and updating only the differing parts between the pre-stored PLD and the received PLD.

3.   Claims 2, 3, 4, 7, 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahn in view of Lee, Marjamaki and Takaya as applied to claim 1 above, and further in view of Wallentin (US 2006/0234706 A1).

4.   Regarding claims 2 and 7, Ahn in view of Lee, Marjamaki and Takaya show

claims 1 and 6, including utilizing PLD to update RNCs and Node-Bs (Ahn, Abstract,

Purpose of Invention; Lee, Abstract, pg. 2 P10 and P16-17, pg. 3 P12-15; Marjamaki,

[0031]).

Ahn in view of Lee, Marjamaki and Takaya do not show where the Node-B and

the RNCs to transmit a response to a PLD reception operation in the URM system after

the node-B and the RNCs have received the PLD.

Wallentin shows a Node-B ([0091]) and RNCs transmitting a response ([0019-

0021, 0066-0068, 0091-0095]) after receiving an update (specifically when said

response is a RESET ACKNOWLEDGE message [0019]).

Ahn in view of Lee, Marjamaki and Takaya and Wallentin thus disclose the

method as set forth in claim 1, further comprising: d) operating the Node-B and the

RNCs to transmit a response to a PLD reception operation in the URM system after the

node-B and the RNCs have received the PLD.

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the disclosure of Ahn in view of Lee, Marjamaki and Takaya with

that of Wallentin in order to provide for a method of acknowledging the reception of

update messages, providing for update verification and thus improved system reliability.

5.   Regarding claim 3, Ahn in view of Lee, Marjamaki, Takaya and Wallentin further

show resetting the Node-B (Majamaki, [0031]) using the updated PLD (Ahn, Abstract,

The Structure and Function of the Invention), and then resetting the RNCs (Lee,

Abstract, pg. 3 P1-7, P15; Wallentin [0019-0021,0066-0068,0091-0095]) using the updated PLD (Ahn, Abstract, The Structure and Function of the Invention).

6.   Regarding claim 8, Ahn in view of Lee, Marjamaki, Takaya and Wallentin further show wherein the RNCs reset the Node-B (Wallentin, Fig. 2 – 4A showing the RNCs and Node-B/base stations operating and exchanging messages, specifically in 4A the Node-B/base station being responsive to a 'CONNECTION RELEASE MESSAGE' from said RNC, thus teaching Node-B's/base stations being responsive to messages from RNCs) using the updated PLD (Ahn, Abstract, The Structure and Function of the Invention), and then reset the system using the updated PLD (where Wallentin's discloses resetting all needed elements [0037,0066-0068,0093-0095] as well as acknowledging via a RESET ACKNOWLEDGE message [0019-0021]).

7.   Regarding claims 4 and 9, Ahn in view of Lee, Marjamaki, Takaya and Wallentin further show operating the Node-B and the RNCs to reset the system using the updated PLD (Ahn, Abstract, The Structure and Function of the Invention) and informing the URM system of a reset completion state of the URM system using the updated PLD (where Wallentin's discloses resetting all needed elements [0037,0066-0068,0093-0095] as well as acknowledging via a RESET ACKNOWLEDGE message [0019-0021]).

8.   Claims 5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahn in view of Lee, Marjamaki, Takaya and Wallentin as applied to claims 3, 4, 8 and 9 above, and further in view of Kim (KR 2001045784).

Ahn in view of Lee, Marjamaki, Takaya and Wallentin further show where multiple files are considered when determining what data has changed when performing an efficient update (Takaya, Abstract).

Ahn in view of Lee, Marjamaki, Takaya and Wallentin do not show wherein the created PLD contains information associated with changed data from among a plurality of PLDs stored in the Node-B and the RNCs.

Kim shows wherein the created PLD contains information associated with changed data from among a plurality of PLDs (Abstract, pg.2 P4-8 and pg. 3 P1-7).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of Ahn in view of Lee, Marjamaki, Takaya and Wallentin with that of Kim in order to utilize an improved updating procedure, specifically regarding improving the handling and usage of said PLD (Kim, Abstract).

Ahn in view of Lee, Marjamaki, Takaya, Wallentin and Kim thus disclose the method as set forth in claim 1, wherein the created PLD contains information associated with changed data from among a plurality of PLDs stored in the Node-B and the RNCs.

9.   Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee as applied to claim 11 above, further in view of Hwang et al. (US 2002/0173314 A1), hereafter Hwang.

Lee shows claim 11, including utilizing PLD for updating and adding an additional node-b without interrupting the mobile communication service (Effect of Invention).

Lee does not show storing the new PLD at an RNC neighboring the RNC which is associated with the node-B being added.

Hwang shows updating RNCs and storing information at a RNC neighboring the
RNC associated with the node-B being added (Abstract, Figs. 6 and 7, [0021]).

It would have been obvious to one of ordinary skill in the art at the time of the
invention to modify the disclosure of Lee with that of Hwang in order to effectively
prevent congestion, resulting in a faster, optimizing network (Hwang, Abstract).

10.   Claims 13,16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable
over Lee in view of Hwang as applied to claim 12 above, and further in view of Ahn.

11.   Regarding claims 13 and 19, Lee in view of Hwang show converting PLD to an
extension specification file (ESF) (Lee, Abstract, pg. 3 P1-4, 8 and 9, where the ESF is
represented by the PLD template file), as well as sending the PLD/ESF to Node-B's
manager, and then subsequently transferring it to the Node-B (Lee, pg. 2 P10).

Lee in view of Hwang do not show wherein the step of storing the new processor
loading data (PLD) at the RNC comprises: creating the processor loading data (PLD) at
the URM; transmitting the ESF from the URM to the RNC; receiving the ESF transmitted
by the URM at the RNC; and storing the ESF transmitted by the URM at the RNC.

Ahn shows creating the processor loading data (PLD) at the URM (Abstract,
Purpose of Invention); transmitting the PLD from the URM to the RNC; receiving the
PLD transmitted by the URM at the RNC; and storing the ESF transmitted by the PLD at
the RNC (Abstract, Structure of Invention).

It would have been obvious to one of ordinary skill in the art at the time of the
invention to modify the disclosure of Lee in view of Hwang with that of Ahn in order to
utilize a clear and well specified method of creating, transferring and utilizing PLD, as

well as providing an alternative method of avoiding system interruption during the process of utilizing said PLD, as the more methods are available, the greater the likelihood that one of said methods will be compatible with a user's system (Ahn, Abstract and Lee, Abstract).

Lee in view of Hwang and Ahn thus disclose claim 13.

As Hwang discloses where updates are desirably sent to neighboring RNCs as well, claim 19 is additionally disclosed (Hwang, Abstract, [0021]).

12.   Regarding claim 16, Lee in view of Hwang and Ahn further disclose wherein the step of storing the new PLD at the Node-B comprises: creating a processor loading data (PLD) at a URM (Ahn, Abstract and Purpose of Invention); converting the PLD to an extension specification file (ESF) at the URM (Lee, Abstract, pg. 3 P1-4, 8 and 9, where the ESF is represented by the PLD template file); transmitting the ESF from the URM to the Node-B being added (Lee, pg. 2, P10, where Lee specifies sending the PLD to Node-B's manager, which then transfers to said Node-B); receiving the ESF transmitted by the URM at the Node-B being added; and storing the ESF transmitted by the URM at the Node-B being added (Lee, pg. 2, P10, where Lee specifies sending the PLD to Node-B's manager, which then transfers to said Node-B. It is inherent that when a data is digitally transferred to a computing device, it must be stored at said device for at least some period of time).

13.   Claims 14, 15, 17, 18, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Hwang and Ahn as applied to claim 13 above, and further in view of Stevens (TCP/IP Illustrated, Volume 1: The Protocols).

14.   Regarding claims 14 and 20, Lee in view of Hwang and Ahn show the method according to claim 13.

Lee in view of Hwang and Ahn do not show receiving at the URM a transmitted response message from the RNC within a predetermined period of time indicating receipt of the ESF transmitted by the URM.

Stevens shows receiving response messages within a predetermined period of time indicating the receipt of a previous message (17.2, TCP Services).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of Lee in view of Hwang and Ahn with that of Stevens in order to utilize a common and well known protocol (TCP) for ensuring system reliability through the use of acknowledgement messages.

As Hwang discloses where updates are desirably sent to neighboring RNCs as well, claim 20 is additionally disclosed (Hwang, Abstract, [0021]).

Lee in view of Hwang, Ahn and Stevens thus disclose receiving at the URM a transmitted response message from the RNC within a predetermined period of time indicating receipt of the ESF transmitted by the URM.

15.   Regarding claims 15 and 21, Lee in view of Hwang, Ahn and Stevens further show transmitting repeatedly a message from the sender to the destination until the transmitted response message from the destination indicating receipt of the message transmitted by the sender within a predetermined period of time has been received (Stevens, 17.2), thus disclosing transmitting repeatedly the ESF from the URM to the destination RNC until the transmitted response message from the RNC indicating

receipt of the ESF transmitted by the URM within a predetermined period of time has been received by the URM.

As Hwang discloses where updates are desirably sent to neighboring RNCs as well, claim 21 is additionally disclosed (Hwang, Abstract, [0021]).

16.   Regarding claim 17, Lee in view of Hwang, Ahn and Stevens further show receiving at the URM a transmitted response message from the Node-B being added indicating receipt of the ESF transmitted by the URM within a predetermined period of time, where Stevens shows sending response messages indicating receipt (17.2) and where Lee shows transmitting from the Node-B's manager (representing the URM) to the Node-B (pg. 2 P10, pg. 3 P1-7).

17.   Regarding claim 18, Lee in view of Hwang, Ahn and Stevens further show transmitting repeatedly the ESF from the URM to the Node-B being added until the transmitted response message from the Node-B being added indicating receipt of the ESF transmitted by the URM within a predetermined period of time has been received by the URM, where Stevens shows repeatedly transmitting until the transmitted response message indicating receipt of the message transmitted by the receiver within a predetermined period of time has been received by the sender (17.2), and where Lee shows transmitting from the Node-B's manager (representing the URM) to the Node-B (pg. 2 P10, pg. 3 P1-7), as well as the ESF (representing the by template PLD structure (Lee, Abstract)).

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